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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,264	11/14/2005	Douglas S. McBain	OMNZ 2 00018	1009

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EXAMINER	
LIU, XUE H	

ART UNIT	PAPER NUMBER
1791	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/534,264	MCBAIN ET AL.	
	Examiner	Art Unit	
	XUE LIU	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) *1-6* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *5/6/05* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/27/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-3, drawn to a method for determining when to inject a coating for in-mold coating a molded article.

Group II, claim(s) 4-6, drawn to a method for in-mold coating a thermoplastic substrate.

Group III, claim(s) 7-18, drawn to a method for ensuring the quality of in-mold coated thermoplastic parts.

2. The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention is the specific claimed process of determining when a thermoplastic has cooled below its melt temperature, which is not present in Groups II & III. The special technical feature of the Group II invention is the specific claimed steps of in-mold coating a thermoplastic substrate, which is not present in Groups I and III. The special technical feature of the Group III invention is the optimization of process conditions in an in-mold coating process, which is not present in either Group I or Group II.

3. During a telephone conversation with Erik Overberger on 8/28/08 a provisional election was made without traverse to prosecute the invention of group III, claims 7-18. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-6 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference character 88 which is on page 9, line 22 in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection

is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 7-14 and 17-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of copending Application No. 10/534219. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are obvious variants of the claims of Application No. 10/534219.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Application Claims	10/534219 Claims
7 and 10	1
7-8 and 10	2
7 and 9-10	3 and 10
7 and 10-11	4
7, 10 and 12	5
7, 10 and 13	5
7, 10 and 14	8
7, 10 and 17	7
7, 10 and 18	9

In the preamble of claim 7 (claims 8-10 are dependent on claim 7), a "method for ensuring the quality of in-mold coated thermoplastic parts" is obvious over a "method for assuring that coated molded articles meet predetermined quality standards, said articles being formed entirely in a mold" as cited in the preamble of claim 1 in 10/534219 because the coated molded articles as reads on the coated thermoplastic part. In step a) of claim 7 "manufacturing an in-mold coated thermoplastic part by molding a thermoplastic using a first set of process conditions in a closed mold to form a substrate" is obvious over "said articles being formed entirely in a mold by a process that includes forming a substrate from a first composition using a first set of process conditions" as cited in the preamble of 10/534219's claim 1 because forming a substrate in a mold reads on forming a substrate in a closed mold. While the preamble of claim 7 does not positively recite the limitation "allowing said coating composition to cure on said substrate so as

to provide a coated molded article" as required by 10/534219's claim 1, the coating composition has to be cured on the substrate in order to harden the coating thereby forming a coated thermoplastic part. While claim 7 does not positively recite the limitation that inspecting the coated thermoplastic part is performed "after said articles is removed form said mold" as cited in 10/534219's claim 1, it would have been obvious in the art to inspect the molded parts after removal from the mold since it would be more convenient to determine if the substrate exhibits voids after it is removed from the mold since the mold will not be obstructing the substrate. Claim 10 is taken to be identical to steps (i) through (iii) in claim 1 as the maintenance of a constant volume throughout the process is merely an optional limitation for claim 1.

In regards to claim 8, the claim is identical to claim 2 of Application No. 10/534219 except the limitation "first composition" as required by claim 2 reads on "thermoplastic" in applicant's claim 8.

In regards to claim 9, the limitation "first composition" as required by claim 3 of 10/534219 reads on "thermoplastic" in claim 9. Claim 10 of 10/534219 teach that the first set of process conditions includes one ore more injection times, one or more injection pressure, one ore more injection volumes and one or more cure times for the thermoset/coating composition.

In regards to claim 11, this claim is identical to claim 4 of 10/534219.

In regards to claim 12, the claim is anticipated by claim 5 of 10/534219.

In regards to claim 13, the claim is anticipated by claim 5 of 10/534219.

In regards to claim 14, the claim is identical to claim 8 of 10/534219.

In regards to claim 17, the claim is identical to claim 7 of 10/534219.

In regards to claim 18, the claim is identical to claim 9 of 10/534219.

Claim Rejections - 35 USC § 103

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 7-12 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted prior art in view of Okamoto (English abstract and machine translation of JP11-147236).

10. Regarding claim 7, Applicant Admitted prior art (AAPA) teaches a method for in-mold coating thermoplastic parts, the method comprising the steps of manufacturing an in-mold coated thermoplastic part by molding a thermoplastic in a closed mold to form a substrate and subsequently contacting an –in-mold coating with said substrate by injecting an in-mold coating into said closed mold (see paragraphs 7-10 in applicant's specification). AAPA does not teach a method for ensuring the quality of in-mold coated thermoplastic parts by: inspecting the coated thermoplastic part; determining whether the molding of the thermoplastic should be optimized for failure to meet defined quality control standards; optimizing the process conditions of the molding of the thermoplastic by adjusting one or more of injection volume, injection temperature, injection pressure, and molding pressure, determining whether the coating of the substrate should be optimized for failure to meet defined quality control standards; and

optimizing the process conditions of the coating of the substrate by adjusting one or more of cure time, injection time, injection pressure, injection volume, injection temperature, or mold temperature at injection for said in-mold coating. However, Okamoto teaches a method for setting molding condition for skin material insert molding, the method comprising the steps of: a) manufacturing an in-mold coated thermoplastic part by molding a thermoplastic Q using a first set of process conditions in a closed mold 3, 4 to form a substrate integrally bonded to a skin material S which is placed inside the mold prior to molding; b) inspecting the coated thermoplastic part; c) determining whether the molding of the thermoplastic should be optimized for failure to meet defined quality control standards; d) optimizing the process conditions of the molding of the thermoplastic by adjusting the injection volume (amount of injection fill), injection pressure, or injection temperature (core material resin temperature) (see English abstract, fig. 1 and paragraphs 6, 8, 13, 16, 27-29, 34 in the machine translation). It would have been obvious to one of ordinary skill in the art to provide the teaching of Okamoto in the in-mold coating process of AAPA since Okamoto teaches that an optimum molding condition prevents the damage of the surface skin layer (see English abstract, paragraph 13 of machine translated specification). Furthermore, it would have been obvious to one of ordinary skill in the art to extend the teaching of Okamoto to optimize the coating of the substrate in the molding of the coating by adjusting various process parameters in the in-mold coating process of AAPA to further improve the appearance of the molded product.

Regarding claim 8, Okamoto teaches determining whether said thermoplastic substrate exhibits inadequate filling, or short-shot of the mold (paragraph 34 in machine translation of the specification).

Regarding claim 9, it is inherent that the in-mold coating process as taught by AAPA is performed under a set of process conditions including: one or more injection pressures for said thermoplastic, one or more injection thermoplastic temperature for said thermoplastic, one or more injection volumes for said thermoplastic, one or more injection times for said thermoset, one or more injection pressures for said thermoset, one or more injection pressures for said thermoset, one or more injection volumes for said thermoset, and one or more cure times for said thermoset.

Regarding claim 10, Okamoto teaches determining whether a surface appearance of the coating is acceptable for a defined end use (paragraphs 5 of machine translated specification).

Regarding claim 11, AAPA teaches cooling the injection molded article in the mold to the point that it has hardened sufficiently to accept the coating (paragraph 7 in applicant's specification). Therefore, it would have been obvious to one of ordinary skill in the art to inject the coating into the mold at a point after the thermoplastic has cooled to a temperature below its melt temperature.

Regarding claim 12, Okamoto teaches monitoring of a temperature in the mold 3, 4 (paragraphs 25 and 31 in the machine translation of the specification).

Regarding claim 14, Okamoto teaches that the optimum molding condition setting is performed repeated until an in-mold coated thermoplastic part is produced that meets defined quality standards (paragraphs 29 and 35 in the machine translation of the specification).

Regarding claim 15, it would have been obvious to one of ordinary skill in the art to adjust the curing time of the coating in the in-mold coating process of AAPA and Okamoto since the curing time determines if a molded part is over cured or under cured.

Regarding claim 16, it would have been obvious to one of ordinary skill in the art to adjust the injection pressure of the in-mold coating since the injection pressure determines whether short shots or burrs occur in a molded part as taught by Okamoto (paragraph 34 in the machine translation of the specification).

Regarding claim 17, Okamoto teaches that values for the process conditions for the molding steps are controlled and recorded by a control apparatus 60 operatively associated with the mold 3, 4 (fig, 1, paragraphs 12-13, 23-24, 27, 33 in machine translation of specification). It would have been obvious to one of ordinary skill in the art to extend this teaching to the molding of the coating in the in-mold coating process of AAPA.

Regarding claim 18, Okamoto teaches that the optimized process conditions are stored in a control apparatus 64 associated with the mold 3, 4 and may be recalled for use in future molding processes (fig, 1, English abstract, paragraphs 1, 8, 13, 16, 27 in machine translation of the specification).

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Okamoto as applied to claim 11 above, and further in view of John Myers (NPL document XP 000518931).

Regarding claim 13, AAPA does not teach monitoring of an internal pressure in the mold. However, John Myers teaches that sensing pressure in the tool cavity is one of the best ways to monitor and regulate the intricacies of the injection molding process. Therefore, it would have been obvious to one of ordinary skill in the art to provide the teaching of John Myers in the in-mold coating process of AAPA since John Myers teaches that the data generated from in-mold pressure sensing facilitates precise optimization of process parameters.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to XUE LIU whose telephone number is (571)270-5522. The examiner can normally be reached on Monday to Thursday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sam Yao can be reached on (571)272-1224. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/X. L./
Examiner, Art Unit 1791

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1791